

**Amendments to the Claims:**

1. (Currently Amended) A chip for a chip-containing portable article comprising:  
  
a monocrystalline silicon substrate layer having an active face with  
circuits integrated therein defining a central processor unit and  
memories; and  
  
an additional layer of monocrystalline silicon that:  
  
is sealed bonded to the active face of the monocrystalline silicon  
substrate layer by a sealing bonding layer;  
  
covers at least part of said active face; and  
  
comprises physical means for providing physical protection  
against the action of electromagnetic radiation in the  
infrared range at a wavelength longer than 1  $\mu\text{m}$ .
2. (Withdrawn) A chip according to Claim 1, wherein the physical means are means  
providing physical protection against the action of electromagnetic radiation in  
the infrared range.
3. (Withdrawn) A chip according to Claim 2, wherein the physical means are means  
providing physical protection against the action of electromagnetic radiation in  
the ultraviolet, visible, and infrared ranges.
4. (Cancelled)
5. (Previously Presented) A chip according to Claim 1, wherein the physical means  
for providing physical protection against the action of electromagnetic radiation  
are silicon dopants.
6. (Previously Presented) A chip according to Claim 5, wherein the concentration  
of silicon dopants lies in the range  $10^{17}$  to  $10^{20}$  atoms per  $\text{cm}^3$ .

7. (Previously Presented) A chip according to Claim 5, wherein the silicon dopants are phosphorus or boron.
8. (Cancelled)
9. (Cancelled)
10. (Previously Presented) A chip according to Claim 1, wherein the physical means for providing physical protection against the action of electromagnetic radiation are formed by surface irregularities.
11. (Cancelled)
12. (Currently Amended) A chip according to claim 10, wherein the surfaces irregularities are provided in the face of the additional layer of monocrystalline silicon that is in contact with the sealing bonding layer.
13. (Currently Amended) A chip according to Claim 10, wherein the surface irregularities are provided in the face of the additional layer of monocrystalline silicon that is opposite to the face that is in contact with the sealing bonding layer.
14. (Currently Amended) A chip according to Claim 1, wherein the physical means for providing physical protection against the action of electromagnetic radiation are formed by at least one deposition of metal on the additional layer of monocrystalline silicon.
15. (Previously Presented) A chip according to Claim 14, wherein the metal deposition has a thickness greater than 50 Å.
16. (Currently Amended) A chip according to Claim 14, wherein the metal deposition is on the face of the additional of monocrystalline silicon that is in contact with the sealing bonding layer.

17. (Currently Amended) A chip according to Claim 14, wherein the metal deposition is on the face of the additional layer of monocrystalline silicon that is opposite to the face that is in contact with the sealing bonding layer.
18. (Cancelled)
19. (Previously Presented) A chip according to claim 16, wherein the metal deposition has a thickness of about 100 Å.
20. (Currently Amended) A portable article provided with a chip comprising:  
a monocrystalline silicon substrate layer having an active face with circuits integrated therein defining a central processor unit and memories; and  
an additional layer of monocrystalline silicon that:  
is sealed bonded to the active face of the monocrystalline silicon substrate layer by a sealing bonding layer;  
covers at least part of said active face; and  
comprises physical means for providing physical protection against the action of electromagnetic radiation in the infrared range at a wavelength longer than 1 µm.
21. (currently amended) The chip according to Claim 5 wherein the silicon substrate layer comprises:  
physical means for providing physical protection against the action of electromagnetic radiation in the infrared range at a wavelength longer than 1 µm; and  
wherein said physical means comprises silicon dopants in the face of the monocrystalline silicon substrate layer that is opposite to the active face.

22. (Currently Amended) The chip according to Claim 21, wherein the concentration of silicon dopants in the monocrystalline silicon substrate layer lies in the range  $10^{17}$  to  $10^{20}$  atoms per  $\text{cm}^3$ .
23. (Currently Amended) The chip according to Claim 22, wherein the silicon dopants in the monocrystalline silicon substrate layer are phosphorus or boron.
24. (Currently Amended) A chip according to Claim 10 wherein the monocrystalline silicon substrate layer comprises:
- physical means for providing physical protection against the action of electromagnetic radiation in the infrared range at a wavelength longer than  $1\text{ }\mu\text{m}$ ; and
- wherein said physical means comprises surface irregularities in the face of the monocrystalline silicon substrate layer that is opposite to the active face.
25. (Currently Amended) A chip according to Claim 14 wherein the monocrystalline silicon substrate layer comprises:
- physical means for providing physical protection against the action of electromagnetic radiation in the infrared range at a wavelength longer than  $1\text{ }\mu\text{m}$ ; and
- wherein said physical means comprising deposition of metal on the face of the monocrystalline silicon substrate layer that is opposite to the active face.
26. (Currently Amended) A chip for a chip-containing portable article comprising:
- a monocrystalline silicon substrate layer having an active face with circuits integrated therein defining a central processor unit and memories; and

physical means for providing physical protection against the action of electromagnetic radiation in the infrared range at a wavelength longer than 1  $\mu\text{m}$  comprising silicon dopants in the face of the monocrystalline silicon substrate layer that is opposite to the active face.

27. (Previously Presented) A chip according to Claim 26, wherein the concentration of silicon dopants lies in the range  $10^{17}$  to  $10^{20}$  atoms per  $\text{cm}^3$ .

28. (Previously Presented) A chip according to Claim 27, wherein the silicon dopants are phosphorus or boron.

29. (Currently Amended) A chip for a chip-containing portable article comprising:

a monocrystalline silicon substrate layer having an active face with circuits integrated therein defining a central processor unit and memories; and

physical means for providing physical protection against the action of electromagnetic radiation in the infrared range at a wavelength longer than 1  $\mu\text{m}$  comprising surface irregularities in the face of the monocrystalline silicon substrate layer that is opposite to the active face.

30. (Currently Amended) A chip for a chip-containing portable article comprising:

a monocrystalline silicon substrate layer having an active face with circuits integrated therein defining a central processor unit and memories; and

physical means for providing physical protection against the electromagnetic radiation in the infrared range at a wavelength longer than 1  $\mu\text{m}$  comprising deposition of metal on the face of

the monocrystalline silicon substrate layer that is opposite to the active face.

31. (Previously Presented) A chip according to Claim 30, wherein the metal deposition has a thickness greater than 50 Å.
32. (Previously Presented) A chip according to claim 30, wherein the metal deposition has a thickness of about 100 Å.